

WONJIN

원진금속(주)

Copper Alloy Billet
Copper Alloy Ingot

Copper Alloy Tube
Copper Alloy Bar

Sprinkler

Wonjin Metal is aiming for the best quality.
We are striving to produce high quality products
with constant quality control.



CEO Greetings

Wonjin Metal commenced as Daewoo Metal Co., Ltd. Wonjin Metal was established in April 2012. Wonjin has built its ground base supplying kitchen/bathroom metal products to domestic and overseas companies. In 2016, we relocated our head office and expand business becoming a brass manufacturer. In November 2016, Wonjin Metal Incheon Branch, a brass processing business, was launched. Also we launched Wonjin stec, a manufacturer of fire extinguishing apparatus and gas valve distributor, in July 2017. Wonjin Metal was a brass product seller at first, but now it has become the one and only Korean specialized company for brass goods ranging from first stage of material processing to third stage of finished goods.

Please look forward to Wonjin Metal which will develop through continuous research and development.

Thank you.

Lee Si-Yeon, CEO of Wonjin Metal

이시연

Company History

- 2012 04** Establishment of Wonjin Metal
- 2016 04** Relocation of head office to Sangbongam Industrial Complex in Dongducheon-si
- 11** Wonjin Incheon Branch
- 11** Accepted Certificate for Hygiene and Safety Standards from KC-Certification Number KCW-2012-0582
- 12** Approval of Stack Emission Business Grade 3
- 12** Certification of Women's Business
- 2017 02** Received KS Certification of Incheon Branch – Certification No. 08-0306, 0152
- 04** Certification of Root Business
- 04** Approval of emission of 5 kinds of wastewater
- 05** Certification of Specialized Company for Materials and Parts
- 07** Establishment of Wonjin stec
- 07** Certification of Venture Company
- 07** Certification of ISO 9001, ISO 14001
- 07** Established Company Institute

Business Introduction

Head Office : Head office of Wonjin Metal in Sangbongam-dong in Dongducheon city conducts strand casting, casting, drawing and extruding of brass materials to manufacture primary brass products and zinc die casting processed goods.

Branch : Wonjin Metal Incheon Branch conducts second and third processing of primary products from the head office and produce finished goods such as faucets or valves.

Wonjin stec : Wonjin stec in Sangpae-dong, Dongducheon city conducts special processing of brass products, fire extinguishing materials and valve distributors.

Copper Alloy Billet

Copper Alloy Billet

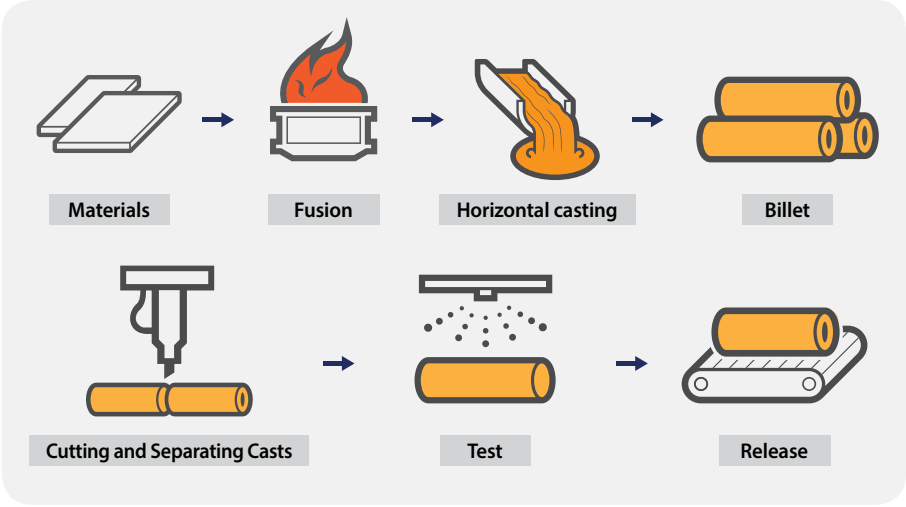
Process of Billet Manufacture

Production Specifications



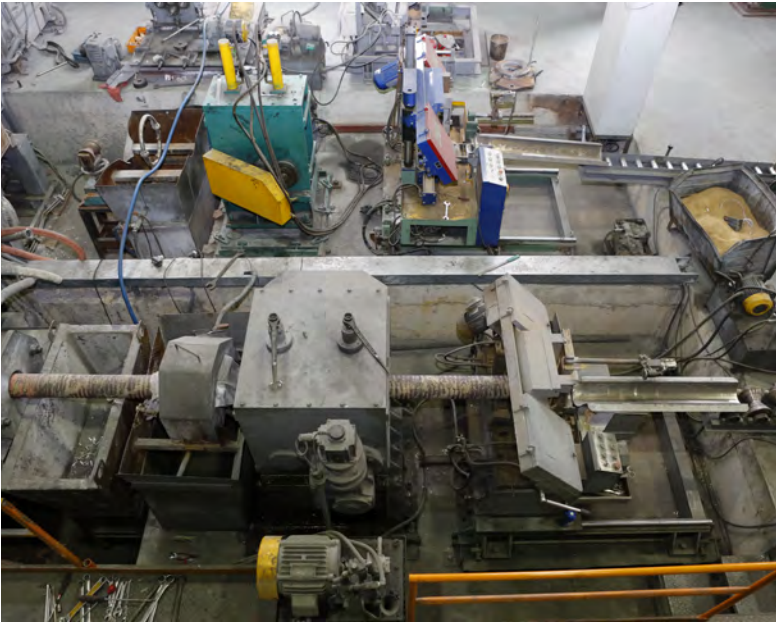
Primary brass products manufactured by fusion of brass scraps in furnace and horizontal continuous casting method.
Ingredient composition is available to adjust for customers' needs; mainly produced in composition ratio for alloy bars (C3604, C3771) or alloy circular pipes (C2600, C2700).

Materials » Fusion » Horizontal casting » Billet » Cutting and separating casts » Test » Release



90Ø ~ 200Ø

Production Picture

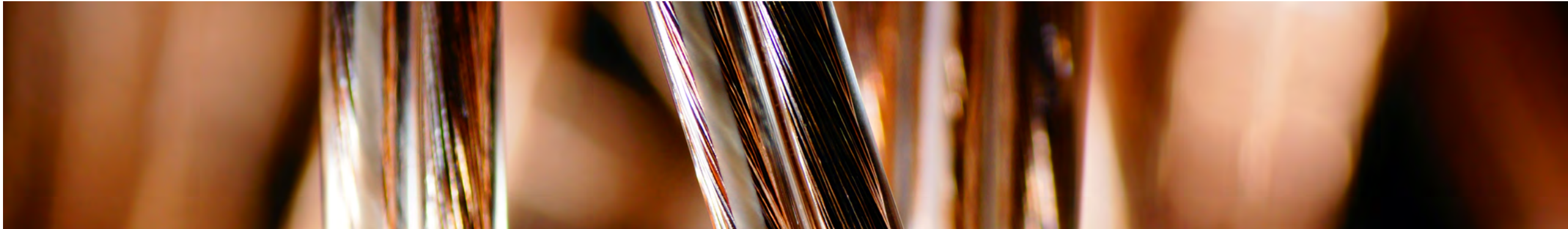


Copper Alloy Ingot

Copper Alloy Ingot

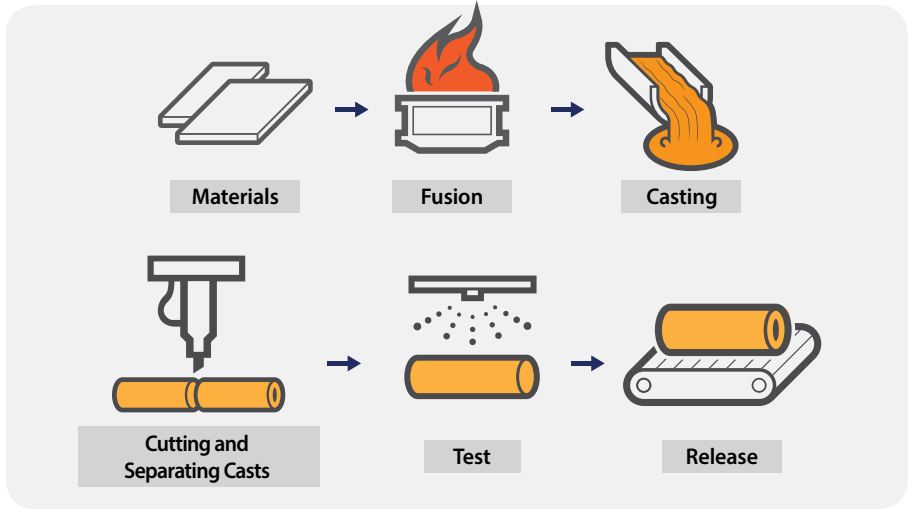
Process of Ingot Manufacture

Production Specifications



Primary brass products manufactured by melting brass scraps in furnace, putting in casts and solidifying

Materials » Fusion » Casting » Cutting and separating casts » Test » Release



Ingot type 1- Grade A, B and C

Copper Alloy Ingot for Casting type 1 : CACIn201/KSD6024								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	83.0~88.0	0.5 ↓	0.2 ↓	0.1 ↓	0.2 ↓	0.2 ↓	-	REM

Ingot type 2- Grade A, B and C

Copper Alloy Ingot for Casting type 2: CACIn202/KSD6024								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	65.0~70.0	0.5~3.0	0.6 ↓	1.0 ↓	1.0 ↓	0.5 ↓	-	REM

Ingot type 3- Grade A, B and C

Copper Alloy Ingot for Casting type 3: CACIn203/KSD6024								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	58.0~64.0	0.5~3.0	0.6 ↓	1.0 ↓	1.0 ↓	0.5 ↓	-	REM

Production Picture

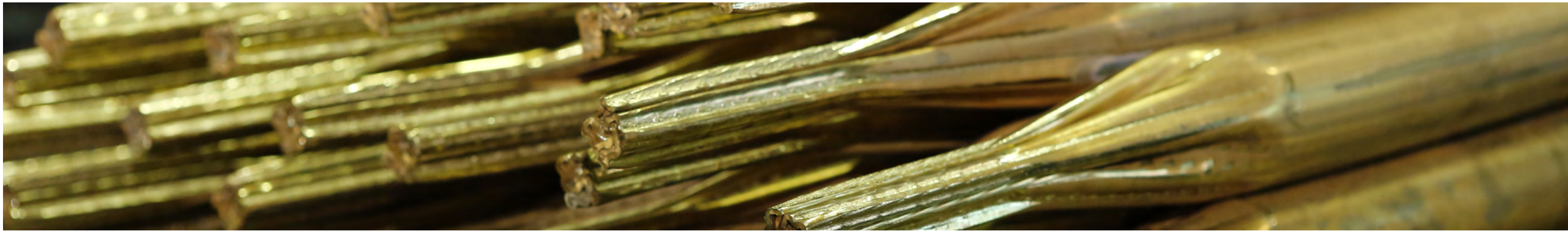


Copper Alloy Tube

Copper Alloy Tube

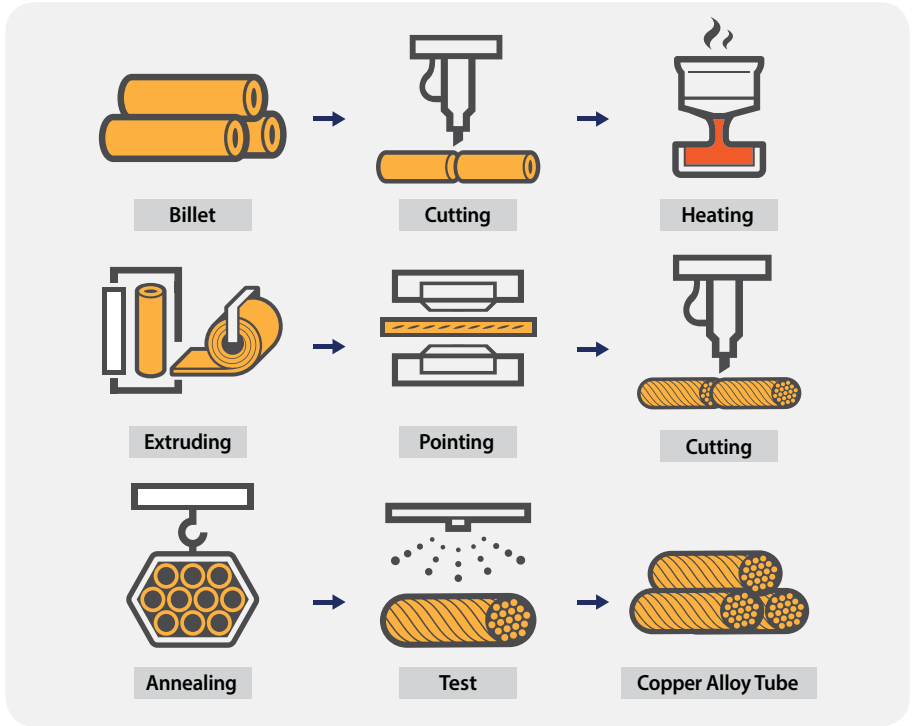
Manufacture Process

Production Specifications



Draw a billet, a primary processed goods, to make it a circular pipe. Reconduct drawing to produce brass tubes in various shapes and sizes. Copper Alloy Tube has a fine degree of Mechano-Luminescence property and plating and drawing performances. It is lead-free and mainly utilized as a material for heat exchanger, faucet or fire extinguishing unit.

Billet » Cutting » Heating » Extruding » Pointing » Cutting » Annealing » Test » Copper Alloy Tube



Decide after checking dies production.

Jointless Copper Alloy Tube C2600/KSD5301								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	68.5~71.5	0.05 ↓	0.02 ↓	-	-	-	-	REM

Jointless Copper Alloy Tube C2700/KSD5301								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	63.0~67.0	0.05 ↓	0.05 ↓	-	-	-	-	REM

Production Picture



Copper Alloy Bar

Copper Alloy Bar

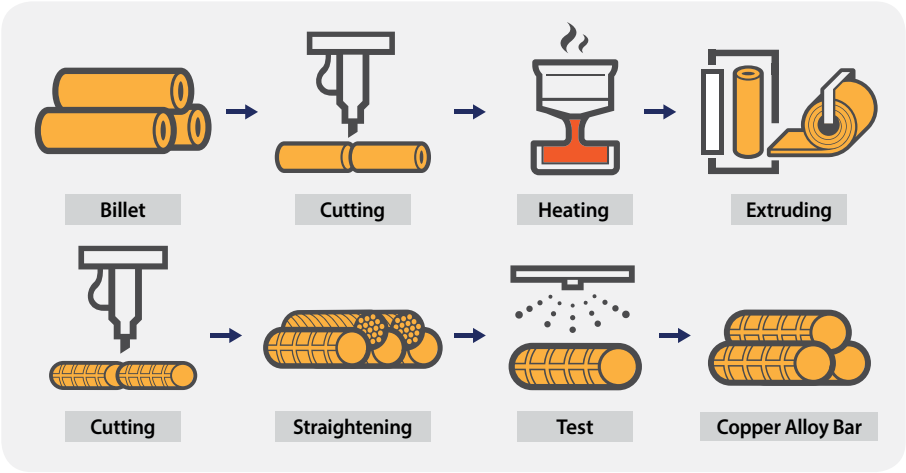
Process of Bar Manufacture

Production Specifications (Bar types)



Manufacture alloy bars in various shapes and sizes by extruding and drawing of billet

Billet » Cutting » Heating » Extruding » Cutting » Straightening » Test » Copper Alloy Bar



Forged Bar

Copper Alloy Bar - Forged Bar: C3771/KSD5101								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	57~61	1.0~2.5	0.5 ↓	0.5 ↓	-	-	-	REM

- Suitable for precision forging with high hot forge ability.
- Mainly produce mechanical parts.

Free Cutting Bar

Copper Alloy Bar - Free Cutting Bar C3604/KSD5101								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	57~61	1.0~2.5	0.5 ↓	0.5 ↓	-	-	-	REM

- Mainly used to process spindles, valves or bolts due to its fine cutting performance.

Naval Bar

Copper Alloy Bar - Naval Bar C4622/KSD5101								
CHEMICAL COMPOSITION (%)								
Composition	Cu	Pb	Fe	Sn	Ni	Al	Mn	Zn
Standard	61.0~64.0	0.3 ↓	0.2 ↓	0.7~1.5	-	-	-	REM

- Mainly used to produce vessel parts or shafts due to its high degree of corrosion and seawater resistance.

Production Picture



Sprinkler

Flush Type Sprinkler Head

Flush Type Sprinkler Head

Sprinkler facility is for automatic fire extinguishing at early stage of fire and for minimize the damage to human and property. Thus maximum Credibility even at worst situation is required. And Asia Union developed the sprinkler head to meet this requirement and to lead technical Innovation. The special features of sprinkler head manufactured by Asia Union as follows.

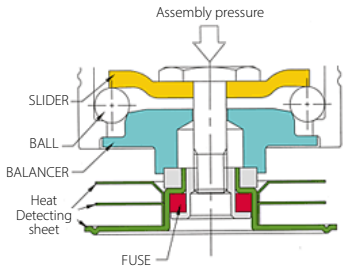
Optimal Sealing by O-Ring

Highly durable Teflon O-Ring was used and special coating was done at the contacting point of O-Ring to ensure perfect Sealing and secured operation at fire detecting.



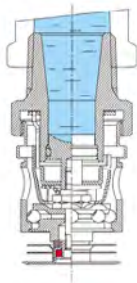
Shock proof structure with steel ball support method

With 8 steel ball support structure for shock esistance, it Is reliably safe from external impact and free from damage And leakage.



Low Assembly Load

By minimizing the assembly load with o-Ring Sealing Method, safety is secured with low pressure inside the Head.



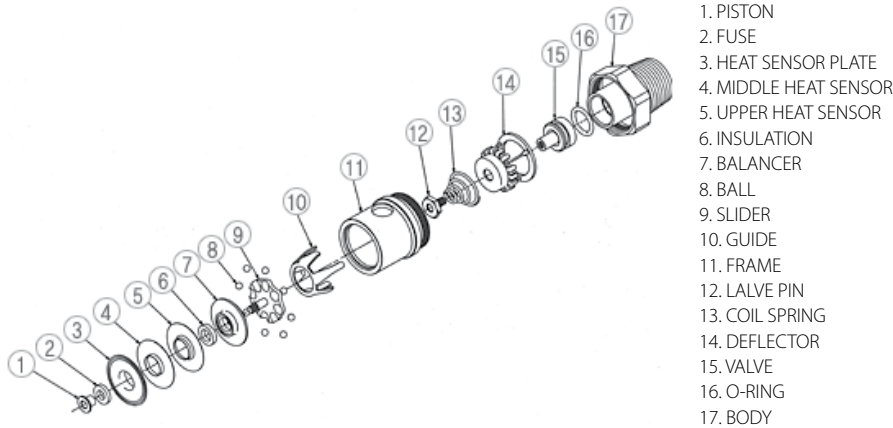
Excellent Design

As the head is installed in the building, aesthetic design By minimizing heat detecting with small head was made.



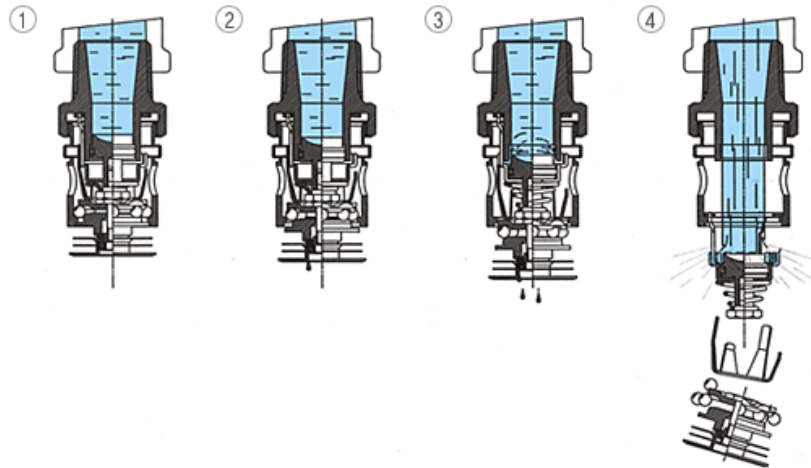
Structure

Our sprinkler head has unique structure with 8 stainless steel balls of 3.2mm O.D. with simple design. Therefore, our sprinkler head secured Shock-proof and leak-proof as well as small and great design with maximum safety.



Operation Process

1. The assembly load of the head is dispersed by 8 balls and fuse metal takes the lowered pressure.
2. When detecting heat by fire, fuse metal gets melted and it start disassembling the structure.
And the assembly load is reduced and disassembling by spring force starts.
3. Disassembled valve by spring force is delivered to inside deflector and deflector disassembles by water pressure.
4. Deflector is hung at the lower end and water starts to sprinkle.



Sprinkler

Flush Type Sprinkler Head



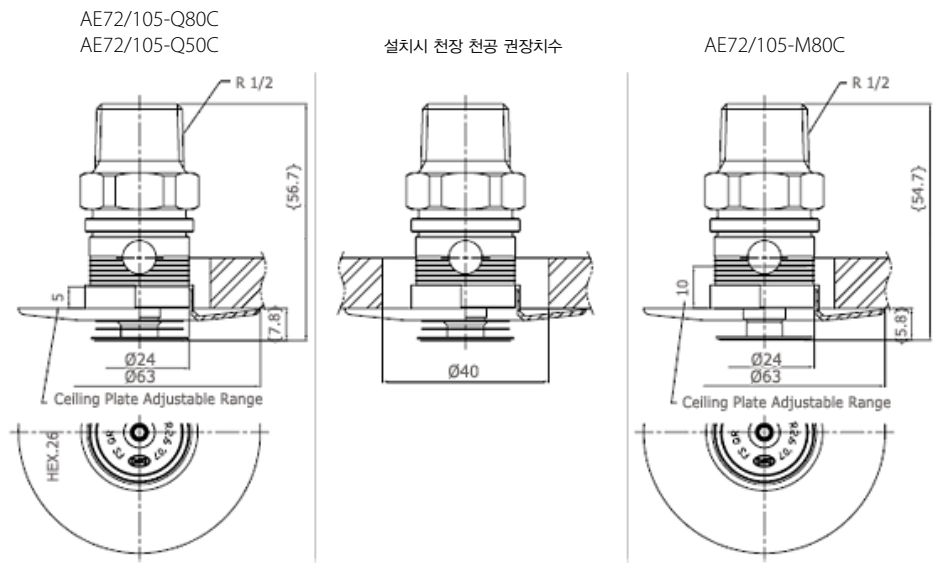
Product specification

Our Flush type sprinkler head is wholly new concept product with high quality special coating, o-Ring, 8 stainless steel balls. Leakage or malfunction in water sprinkling is not possible unless full disassembling by heat temperature and external impact. It Has our own proprietary stable design with high performance of shock resistnace.



Product No.	Temp.	Heat Sensor	Water Vol.(ℓ/min)	Sprinkling Range(m)	Direction	Color	Weight(g)
AE72-Q80C	72℃	Quick Type	80	2.6m	Down	Non	98
AE105-Q80C	105℃	Quick Type	80	2.6m	Down	Whit	98
AE72-Q50C	72℃	Quick / Living Type	50	2.6m	Down	Non	114
AE105-Q50C	105℃	Quick / Living Type	50	2.6m	Down	Whit	114
AE72-M80C	72℃	Standard Type	80	2.3m	Down	Non	97
AE105-M80C	105℃	Standard Type	80	2.3m	Down	Whit	97

Assembly installation



Sprinkler

Glass Bulb Type Sprinkler Head



Glass Bulb Type Sprinkler Head

The heat sensor part of glass bulb is for internal gas and can be used For sensor head of bubble extinguisher in the parking lot and also Good for nozzle plumbing without ceiling. Our glass bulb type sprinkler Head is using the bulb made by Job, the world's biggest glass bulb Maker and secures best possible reliability for its superior function.

Specification

1. Thread : PT 1/2
2. Water Pressure Range : 1~10kgf/cm²
3. Internal Test Water Pressure : 5 minutes at 25kgf/cm²4)
4. Heat Sensor : Glass Bulb

Product No.	Temp.	Heat Sensor	Water Vol.(ℓ/min)	Sprinkling Range(m)	Direction	Color	Glass Bulb Color	Weight(g)
AG68-Q80-SSP	68℃	Quick Type	80	2.6m	Down	Non	Red	51.5
AG93-Q80-SSP	93℃	Quick Type	80	2.6m	Down	White	Green	51.5
AG68-Q80-SSU	68℃	Quick Type	80	2.6m	Up	Non	Red	51.5
AG68-M80-SSU	68℃	Standard Type	80	2.3m	Up	Non	Red	51.5
AG93-M80-SSU	93℃	Standard Type	80	2.3m	Up	White	Green	51.5
AG141-Q80-SSP	141℃	Quick Type	80	2.6m	Down	Blue	Blue	51.5
AGOP-80-SSP	Opening Type Head		80	2.3m	Down	Glass Bulb None		50.0
AGOU-80-SSU	Opening Type Head		80	2.3m	Up	Glass Bulb None		50.0



Field Work

Picture



Wonjin Metal is aiming for the best quality.
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Picture



WONJIN
원진금속(주)

Facilities



Strand Casting Part

High frequency heating machines
Low frequency heating machine



High frequency heating machines



Spectro



Low frequency heating machine



Single-acting extruder

Extruding Part

Double-acting extruder
Single-acting extruder

Drawing Part

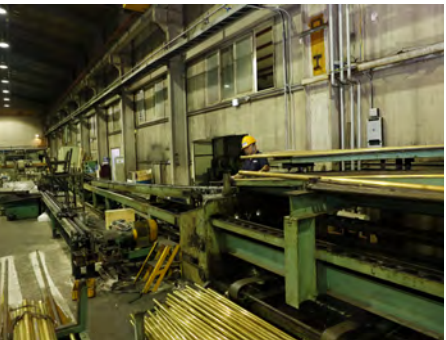
75t drawer
25t drawer
10t drawer
7.5t drawer

Processing Part

Metal processors
T shape manufacturing machine
Automated lathes



75t drawer



25t drawer



10t drawer

Certificate



Wonjin Metal

원진금속(주)



Wonjin Headquarters.

23, Pyeonghwa-ro 2862beon-gil, Dongducheon-si, Gyeonggi-do, Republic of Korea

Wonjin Stc.

85-8, Samyuksa-ro 596beon-gil, Dongducheon-si, Gyeonggi-do, Republic of Korea

TEL. +82-31-867-4811 / E-mail. wonjinmetalmain@naver.com